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(57) Abstract

PURPOSE: To suppress the occurrence of side etching and make it possible to perform anisotropic etching by a method wherein SiCl_4 is added to etching gas when aluminum or aluminum alloy is etched in the case where the area of photoresist to be used as a mask is 20% or less.

CONSTITUTION: When the aluminum or the alloy film 3, consisting of aluminum and Si, Ti, Cu and the like grown on a semiconductor substrate 1, is dry-etched using a photoresist pattern 4 having the area ratio of only 20% or less on the semiconductor substrate 1 as a mask, SiCl_4 is added as etching gas. PSG 2 is grown on the semiconductor substrate, for example, and an Al-Si (1%) alloy 3 is grown thereon using a sputtering method. Then, phenol resin positive type photoresist is patterned. At this time, the area of the photoresist pattern 4 is set at 20% or less. Then, anisotropic etching is performed on the Al alloy 3 by the mixed gas 5 formed by adding SiCl_4 gas of 100 sccm or thereabout to $\text{BCl}_3 + \text{Cl}_2$ gas using the photoresist pattern 4 as a mask.

